APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,544	05/01/2001	Michael Hollatz	00EC065/79244	4119

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EXAMINER
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ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 January 2005</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-59</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-59</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>01 May 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 6,707,821 to Shaffer et al in view of U.S. Patent No. 6,845,105 to Olsson et

al.

Referring to claims 1, 31, 44-47 and 57, Shaffer teaches in figure 1 a portion of a

device, e.g., implemented on a computer, that multiplexes VoIP packets and other data

packets onto a common data link using a priority queuing mechanism. The VoIP

packets are created by digitally encoding a voice capture channel using an analog to

digital converter and a voice encoder. Data packets are received from other

applications running on the computer, e.g., a web-browser, e-mail application, or

networked file system application (receiving data packets from data processing device)

(column 1, lines 50-59). In figure 1, data packets pass through an optional data packet

fragmenter, which segments large data packets into sequences of smaller data packets

before submission to the queue (dividing the data packets into divided data packets)

(column 1, lines 62-66). The packet scheduler multiplexes packets from the queues to

the data link interface (interspersing the divided packets among the voice packets and

sending the data packets and the voice packets to a communication network) (column 2, lines 5-6).

Shaffer does not specifically disclose receiving data packets from a *plurality* of data processing devices.

However, in Figure 10, Shaffer shows that IP phone 80 is connected to a computer 80. Refer to Column 7, lines 57-64. Computer 80 can support many applications including a "web-browser, e-mail application, or networked file system application". Refer to Column 1, lines 57-59. Each of these applications are processed by different systems within the computer 80. Furthermore, this offers motivation to one skilled in the art to include that each of these and other applications may be provided by servers separate from computer 80. Since different applications on the computer are offered, different priorities need to be assigned to each application to determine their order of transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include receiving data packets from a *plurality* of data processing devices; the motivation being so that a system can support several different types of applications, thereby diversifying the system.

Shaffer also does not disclose: assigning a first priority level to the voice packets, a second priority level to data packets from a first data processing device of the plurality of data processing devices and a third priority level to data packets from a second data processing device of the plurality of data processing devices where the first, second and third priority levels are all different; and sending the data packets based upon respective priorities of the voice packets and the data packets.

Olsson et al disclose in Figure 1 a node with queues 111-114 ranging from low to

high priority. Voice packets are assigned to the highest priority queue. Packets of

successively lower priorities are assigned to successively lower priority queues.

Packets associated with non-real time data are placed in a separate best efforts queue.

Process 131 sends packets out according to priority levels, with the high priority

outbound packet 118a from the highest priority queue 114 being sent out first, and best

effort packets being sent out when there are no higher priority packets to be sent. Refer

to Column 5, line 53 to Column 6, line 10; and Column 6, lines 41-54. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was

made to include assigning a first priority level to the voice packets, a second priority

level to data packets from a first data processing device of the plurality of data

processing devices and a third priority level to data packets from a second data

processing device of the plurality of data processing devices where the first, second and

third priority levels are all different; and sending the data packets based upon respective

priorities of the voice packets and the data packets. One would be motivated to do so in

order to prioritize packets so that time critical data such as voice is sent out first,

followed by successively lower priority packets, thereby ensuring that real time data is

sent with the highest quality of service and non-real time data is sent last, since it is not

time sensitive.

Referring to claim 5 and 48, Shaffer teaches the method described in reference

to claims 1 and 44 above where it was clearly shown that the method operates on a

computer (column 1, line 51).

Referring to claims 6-9, 15, 20, 21, 25-27, 32, 49, 50, 55 and 58, Shaffer teaches

the method described in reference to claims 1, 31 and 44 above and also teaches that

the scheduler selects time-critical packets from queue 28 (the Voice Packet queue) until

queue 28 is emptied (voice packets have a higher priority than data packets and are

processed before the data packets, the priority is assigned based upon how the packets

are processed and preference is given to voice packets) (column 2, lines 5-7).

Referring to claims 10, 18, 28, 33 and 54, Shaffer teaches the method described

in reference to claims 1, 15, 20, 31 and 44 above and also teaches that the network is

an Internet Protocol network (column 1, lines 34-37).

Referring to claim 17, Shaffer teaches the method described in reference to claim

15 above where it was clearly shown that the method operates on a computer (column

1, line 51).

Referring to claims 36 and 59, Shaffer teaches the method described in

reference to claim 1 above and as shown in figure 1, data link 38 is clearly a two-way

path. The network described is clearly a two-way network that can both transmit data or

receive data from another source.

Referring to claim 38, Shaffer teaches the method described in reference to claim

36 above where it was clearly shown that the method operates on a computer (column

1 , line 51).

Referring to claim 39, Shaffer teaches the method described in reference to claim

36 above and also teaches that the scheduler selects time-critical packets from queue

28 (the Voice Packet queue) until queue 28 is emptied.

Referring to claim 40, Shaffer teaches the method described in reference to claim 36 above and also teaches that the network is an Internet Protocol network (column 1, lines 34-37).

Referring to claim 56, Shaffer teaches the method described in reference to claim 1 above and also teaches that the VoIP packets are created by digitally encoding a voice capture channel, e.g., from a microphone or headset, (user interface) using an analog-to-digital converter and a voice encoder (column 1, lines 53-56).

Referring to claims 3, 4, 23, 24, 37 and 52, Shaffer teaches the method described in reference to claims 1, 20, 36 and 44 above and also teaches in figure 4 that the two data packets have been divided into 3 equal parts and 1 unequal part.

Referring to 2, 16, 22 and 51, Shaffer teaches the method described in reference to claims 1, 15, 21 and 44 above and also teaches in another embodiment that when a scheduler has difficulty scheduling a large data packet for transmission, the scheduler may submit the packet to a fragmenter for fragmentation. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that if the size of a packet is too large, as determined by a threshold established in the scheduler, then the packet would be fragmented to help eliminate the scheduling difficulty (column 9, lines 9-14).

Referring to claims 11-14, 19, 29, 30, 34, 35, 41-43 and 53, Shaffer teaches the method described in reference to claims 1, 15, 20, 31, 36 and 44 above and also has clearly taught that the network is an Internet Protocol network (column 1, lines 34-35). At the time the invention was made, it would have been obvious to a person of ordinary

skill in the art that the Ethernet protocol is used in networks using the Internet Protocol.

One of ordinary skill in the art would have been motivated to use the Ethernet Protocol

on an Internet Protocol network is a well-known industry practice.

Conclusion

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christine Ng whose telephone number is (571) 272-

3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng CN
June 24, 2005

RICKY NGO
PRIMARY EXAMINER

6/27/05